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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,360	07/23/2003	Eugene A. Roylance	200309697-1	1222

22879 7590 05/11/2009

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EXAMINER

HUFFMAN, JULIAN D

ART UNIT	PAPER NUMBER
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2853

NOTIFICATION DATE	DELIVERY MODE
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05/11/2009

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EUGENE A. ROYLANCE & SHELL S. SIMPSON

Appeal 2009-1287
Application 10/626,360
Technology Center 2800

Decided: May 7, 2009

Before CHARLES F. WARREN, MARK NAGUMO, and
KAREN M. HASTINGS, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1, 4, and 6-8. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

STATEMENT OF THE CASE

The invention relates to a computer readable medium integrated into a removable cartridge for an image enhancement forming device (e.g., a printer). Claim 1 is illustrative:

1. A computer readable medium integrated into a removable cartridge for an image forming device, the computer readable medium being programmed with and comprising:
a plurality of image enhancement data sets including at least one image enhancement data set selected from a group of image enhancement data sets comprising an edge smoothing image enhancement data set, a halftone image enhancement data set, and an imaging material conserving image enhancement data set; and
data set selection criteria for use in selecting from among the plurality of image enhancement data sets,
wherein at least one image enhancement data set defines at least one condition selected from a group of conditions comprising a first condition associated with the edge smoothing image enhancement data set for use when printing text or line art, a second condition associated with the halftone image enhancement data set for use when printing a halftone image, and a third condition associated with the imaging material conserving image enhancement data set for use when printing a solid area of an image.

The prior art relied upon by the Examiner in the rejection of the appealed claims is:

Hirst	US 5,930,553	July 27, 1999
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The Examiner rejected claims 1, 4, and 6-8 under 35 U.S.C. § 102(b) as being anticipated by Hirst¹.

Appellants have not separately argued any of the claims with any reasonable degree of specificity (App. Br. 4-7).² Therefore, Appellants have

¹ The assignee listed on Hirst is Hewlett-Packard, which is the same as the real party in interest identified in the present application (App. Br. 1).

² We decline to consider the argument regarding dependent claim 4 raised for the first time in the Appellant's Reply Brief, without a showing of good

waived any arguments directed to the separate patentability of these claims. *See* 37 C.F.R. § 41.37(c)(1)(vii), *see also In re Young*, 927 F.2d 588, 590 (Fed. Cir. 1991).

Accordingly, we select independent claim 1 to decide the issue on appeal.

ISSUE ON APPEAL

Have the Appellants shown that the Examiner reversibly erred in rejecting the claims because:

(a) Hirst does not disclose “a plurality of image enhancement data sets”, with “at least one image enhancement data set selected from” the three alternatives listed in claim 1;

(b) Hirst does not disclose “at least one” of a first, second, or third “condition” as recited in claim 1; and

(c) Hirst does not disclose “data selection criteria for use in selecting from among the plurality of image data sets” as recited in claim 1?

This issue turns on the broadest reasonable interpretation of the above noted claim language.

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, a claim is given its broadest reasonable construction “in light of the specification as it would be

cause. *See*, 37 CFR 41.37(c)(1)(vii), second sentence, which reads: “Any arguments or authorities not included in the brief or a reply brief filed pursuant to § 41.41 will be refused consideration by the Board, unless good cause is shown.”)

interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Although claims are to be interpreted in light of the specification, limitations from the specification are not to be read into the claims. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993); *see also, e.g., In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

An applicant seeking a narrower construction must either show why the broader construction is unreasonable or amend the claim to expressly state the scope intended. *In re Morris*, 127 F.3d 1048, 1057 (Fed. Cir. 1997).

Anticipation

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *See Verdegaa Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

However, the law of anticipation does not require that the reference ‘teach’ what the subject patent (or application) teaches. Assuming that a reference is properly ‘prior art,’ it is only necessary that the claims, as construed, ‘read on’ something disclosed in the reference, i.e., all limitations of the claim are found in the reference, or ‘fully met’ by it. *See Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

FINDINGS OF FACTS

Findings of fact throughout this opinion are supported by a preponderance of the evidence.

Appellants’ Specification defines the term “image enhancement techniques” broadly:

Image enhancement techniques include any techniques than can improve the quality of printed output as well as any technique that can improve the quality of printed output as well as any techniques that can reduce the amount of imaging material such as toner or ink toner used to produce the printed output. A parameter is data used to implement an image enhancement technique.

(Spec. 5, para. [0020]; emphasis provided).

Appellants' Specification also defines the term "image enhancement data sets" broadly, as representing "*generally any data* used for image enhancement. . . .The term 'set' is used only to help the reader distinguish one group of image enhancement data from another." (*See*, Spec. 10, para. [0034]; emphasis provided).

Similarly, Appellants' Specification explains that "selection criteria are used to determine which image enhancement technique or techniques *to use at a given time and/or* to determine a parameter or parameters for implementing the particular image enhancement technique or techniques." (Spec. 5, para. [0021]; emphasis provided).

The Specification explains further that

[t]he determinations can be based upon any number of factors including, but not limited to, whether an image includes text, graphics, or both, the environment in which the image forming device is operating, the level of remaining imaging material, and the extent to which the limited life components of the image forming device have been used. Limited life components are those components of an image forming device that degrade or wear though use affecting print quality. Often, limited life components are integrated within the same cartridge containing the imaging material.

(Spec. 5, para. [0021]; emphasis provided).

Appellants' Specification teaches that image enhancement data may include one or more conditions, "each associated with electronic data identifying one or more image enhancement techniques and/or parameters, if any, for implementing image enhancement techniques." (Spec. 8, para. [0029].)

The term "condition" is defined as

a circumstance or set of circumstances that when met indicate the image enhancement technique(s) and any parameter(s) associated with that condition are to be implemented. The following are examples of conditions and associated techniques.

....

Technique execution logic 36 represents *any programming capable of implementing an image enhancement technique.* (Spec. 8, para. [0029], [0030]; emphasis provided).

As found by the Examiner, Hirst describes all the elements set forth in independent claim 1 (Ans. 3, 4, 6-10; e.g., Hirst, Figs. 1, 2; col. 1, l. 56 to col. 2, l. 10; col. 2, ll. 45-50; col. 3, ll. 34-55; col. 5, ll. 10-26).

Specifically, the Examiner found, and provided a detailed rationale of the in support thereof, that the color look-up tables of Hirst reasonably encompasses the claimed "plurality of image enhancement data sets" including at least one of an image material conserving image enhancement data set (see, Ans. 3; 5-8).

The Examiner also found that the image enhancement data set of Hirst includes at least one condition as claimed (Ans. 4; Hirst, col. 2, ll. 46-48 (color lookup tables control generation of specific color shades) and col. 5, ll. 19-24 (memory has storage space for calibration data for use by the image forming device over the life of the consumable such as the toner to carrier ratio and sensor calibration data, etc.).

Appellants do not dispute with any specificity the Examiner's finding, and detailed rationale in support thereof, that Hirst also describes a halftone image enhancement data set (compare, Ans. 8-10; Reply Br. 1-5).

The Examiner also found that the programming to select whether to install the updated color look up tables and/or various other programming updates (e.g. based on a version number or manufacturing date) reasonably encompasses the claimed "data selection criteria for use in selecting from among the plurality of image enhancement data sets" (Ans. 4; Hirst, col. 3, ll. 34-54).

One of ordinary skill in the art would have also appreciated that "data set selection criteria" are necessarily used for selecting the appropriate color and/or shade of color in color printing devices.

ANALYSIS

Appellants contend that "the Examiner mistakenly equates the image enhancement data sets . . . with Hirst's color look-up table and 'software or firmware updates'" (App. Br. 5, 6). Appellants further allege that "at least one" of a first, second, or third condition as recited in claim 1 is not taught by Hirst (App. Br. 6). Finally, Appellants contend that Hirst does not teach using data selection criteria to select from among a plurality of software patches, or from among a plurality of color look-up tables (Reply Br. 3).

Appellants have the burden of showing that the Examiner's interpretation of the disputed claim terms is unreasonable.

The first step in evaluating an anticipation analysis is to construe the contested limitations correctly to understand their scope and meaning. *See Gechter v. Davidson*, 116 F.3d 1454, 1457 (Fed. Cir. 1997).

Appellants' Specification makes clear that the claimed terms must be read broadly. Specifically, the claim phrase "image enhancement data sets" reads on "*any data*" (Spec. 10, para. [0034]) that enhances the image by "*any technique*" (Spec. 5; para. [0020]), including techniques that optimize toner usage (*see*, Spec. 10, para. [0034]). Likewise, the claimed "at least one condition" reads on "*any programming* capable of implementing an image enhancement technique" (Spec. 8, para. [0030], emphasis provided).

Accordingly, we find no basis in the language of claim 1 or in the disclosure in the Specification on which to read the disputed language in the narrow sense urged by Appellants.

The plain meaning and reading of "image enhancement data sets" reasonably encompasses the color look-up tables described in Hirst as aptly explained by the Examiner (*see*, e.g., Ans. 8-10). Appellants have not provided any credible evidence or reasoning to refute the Examiner's position that color look-up tables are data used for image enhancement and are therefore within the scope of the recited "image enhancement data sets".

Furthermore, Appellants have not provided any credible evidence or reasoning to refute the Examiner's finding (Ans. 8-10) that the data set(s) used to update the separate microcomputer which rasterizes the image would have necessarily included a halftone image enhancement data set. Thus, the Examiner's position that the update data sets are image enhancement data sets has not been refuted,.

Appellants mere allegation that Hirst does not include at least one of a first, second and third condition as recited in claim 1 (App. Br. 6) amounts to no more than pointing out what the claim recites and thus does not establish error in the Examiner's findings set out in the Answer at page 4.

Furthermore, Appellants' Specification defines "a condition" broadly (Spec. 8, para. [0029]) such that the claim language reasonably encompasses Hirst's various programming updates (such as updated color look-up tables and halftone processors) to update any and all of the four separate microcomputers within commercially available color laser printers (*e.g., see, Ans. 9; Hirst, col. 1, l. 56 to col. 2, l. 8*).

Appellants' contention that Hirst does not disclose "data set selection criteria for use in selecting from among the plurality of image enhancement data sets" (Reply Br. 3; emphasis in original) is not persuasive of error. Appellants' Specification describes "data set selection criteria" as including "criteria used to determine which image enhancement technique or techniques *to use at a given time*" (Spec. 5, para. [0021]; emphasis provided). Further, "determinations can be based *upon any number of factors including, but not limited to*" a list of numerous factors (*id.*; emphasis provided). Thus, the phrase "data set selection criteria" must be read broadly. Accordingly, the Examiner's finding that the programming in Hirst to compare version numbers and/or manufacturing dates to install updates as needed is within the scope of the claimed language of "data selection criteria for use in selecting from among the plurality of image enhancement data sets" is reasonable.

Appellants imply that the claim phrase "selecting from among" does not encompass selecting all of the updates (Reply Br. 3). However, as pointed out by the Examiner in the Final Rejection, there is nothing in the claim that requires that less than all the plurality of image enhancement data sets be selected. Rather, the claim merely requires that the computer readable medium contain a plurality of image enhancement data sets

available for selection. Furthermore, one of ordinary skill in the art would have also appreciated that “data set selection criteria” are necessarily used for selecting the appropriate color and/or shade of color among all of the possible colors in color printing devices.

The literal language of claim 1 is broad. Appellants have failed to show that the Examiner's construction is unreasonable in light of the supporting disclosure. While the Specification contains various specific implementations of the invention, it also contains broad descriptions that support, rather than contradict, the Examiner's claim construction.

CONCLUSION

Appellants have not shown that the Examiner reversibly erred in rejecting the claims as anticipated by Hirst. The Examiner's § 102 rejection is based on a reasonable interpretation of the disputed claim language and a reasonable reading of the claim limitations on the cartridge described by Hirst.

We sustain the § 102 rejection of claims 1, 4, and 6-8 as being anticipated by Hirst.

ORDER

The Primary Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal maybe extended under 37 C.F.R. § 1.136(a).

AFFIRMED

tc

Appeal 2009-1287
Application 10/626,360

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